

42. (Amended) The flocked article of claim 41, wherein said flocked surface has a wear test cycles to leakage [an abrasion to leakage value] of at least 500 [wear] cycles.

43. (Amended) The flocked article of claim 41, wherein said flocked surface has a wear test cycles to leakage [an abrasion to leakage value] of at least 1000 [wear] cycles.

44. (Amended) A flocked article comprising
a substrate; and
at least one layer of flock particulate comprising expanded PTFE attached to at least a portion of said substrate so that at least a portion of the flock particulate stands on end.

REMARKS

Applicants' representative would like to take this opportunity to thank Examiner Juska for the Interview on February 16, 2000, in connection with the present application. A brief summary of the interview is included with the comments provided below.

Claims 1-53 stand rejected. Claims 1, 3-9, 13-17, 27, 31-38, and 41-44 have been amended. Applicants respectfully request reconsideration of the present application in view of the following remarks.

I. Objections to the Specification

The specification was objected to as failing to provide proper antecedent basis for the claimed subject matter. Applicants submit that the specification fully supports the claimed features, as noted below. To expedite prosecution, applicants have added clarifying text to the specification which is fully supported by the specification and does not constitute new matter.

With respect to the objection to the "abrasion to leakage values" recited in claims 1-9, 27, 31-34, 36-38 and 41-43, applicants have amended the claims to refer to "abrasion resistance cycles to leakage" which better conforms with the language in the specification. The abrasion resistance test to which these values relate appears on page 14, line 34 through page 15, line 28. Moreover, as suggested during the interview, applicants have included a sentence at page 13, line 18 which is fully supported by the disclosure of the claims and by numerous examples in the specification.

With respect to the objection to the moisture vapor transmission rates in claims 23-26, as suggested in the interview, applicants have included two sentences at page 11, line 37 which are fully supported by the disclosure of the claims and by numerous examples in the specification.

With respect to the objections to the specification relating to claims 14-17, applicants have amended the claims to render this objection moot.

With respect to the objection to the specification relating to claims 28-30, applicants direct the attention of the Patent Office to the description on page 5, line 36 through page 6, line 4, as well as Example 12, for support for the claimed features.

The informalities objection relating to pages 22 and 28 is rendered moot by the amendments to the specification.

II. Rejections under 35 U.S.C. §112

Claims 28-30 were rejected under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one of skill in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Specifically, it was stated in the Office Action that claims 28-30 "limit the substrate to a water and wind resistant, breathable material which is not ePTFE. However, the specification is directed solely to flocked articles comprising ePTFE. Thus, said claims are not enabled by the specification." Applicants respectfully traverse this rejection.

Specifically, applicants direct the attention of the Patent Office to page 9, lines 13-19 (emphasis on line 18) and to lines 27-34, wherein it is stated that the ePTFE component of the flocked article may be as the flock component. Applicants submit that suitable substrate materials other than ePTFE are described at page 7, line 21 through page 8, line 5. Accordingly, applicants respectfully request that this rejection be withdrawn.

Claims 10-16, 21 and 22 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Specifically, it was stated in the Office Action that claims 10-13, 15, 21 and 22 are indefinite since the spacial location of the further material is not defined. Applicants direct the attention of the Patent Office to page 8, lines 6-10, which describes suitable geometries of the substrate. Provided the limitation of claim 1

with respect to the flock being attached to the expanded PTFE is met, the "further" material may be located in any suitable configuration of the substrate, such as is described in the specification. Accordingly, applicants respectfully submit that these claims are not indefinite under §112, and applicants request that this rejection be withdrawn.

With respect to the rejection of claims 13 and 14, applicants submit that the amendments to the claims render this rejection moot.

With respect to the rejection noted in numbered Paragraph 9, applicants confirm the discussion at the interview during which Examiner Juska indicated that this rejection would be withdrawn.

III. Rejections under 35 U.S.C. §102(b)

Claim 53 was rejected under 35 U.S.C. §102(b) as anticipated by U. S. Patent No. 5,026,591, issued to Henn et al. Applicants respectfully traverse this rejection.

Specifically, it was stated in the Office Action that claim 53 is drawn to a flocked article comprising a substrate of expanded PTFE and at least one layer of flock particulate attached to at least a portion of the ePTFE to form a flocked surface, wherein at least a portion of the flock particulate stands on end.

During the interview, applicants' representative discussed with Examiner Juska the Henn et al. reference. Henn et al is directed to and claims a coated product comprising a substrate and a continuous coating. The continuous coating is applied to the substrate, then "taken-up" onto a roller for ease in, for example, storing or shipping the coated product. During this take-up procedure, it was found that the coating tended remain tacky and to stick to the adjacent coating, which was an undesirable result. In order to prevent this undesirable sticking, in Examples 8C and 8D of Henn et al., loose cotton or rayon fiber flock was married onto the coating surface as it was taken-up onto the roll. The flock was pressed flat onto the coating surface as subsequent layers of the material were taken-up on the roll. Applicants repeated examples 8C and 8D in the Comparative Examples 1 and 2 of the present application. As was shown at the interview, applicants are enclosing a sample of Comparative Sample 2F, along with a scanning electron micrograph (SEM) of the cross section of the material. As can clearly be seen from the micrographs, and as is apparent from touching the surface of the material, the flock fibers do not stand on end, as is presently claimed. Moreover, the abrasion resistance of the Comparative Examples (see

page 18) as measured by wear test cycles to leakage is measured to be 3 or less, which is significantly below applicants' claimed at least 50 cycles. The low wear resistance is further demonstrated by the ease with which the green fibers on the sample can be scratched off with a fingernail, as was done in the interview.

In contrast to the material of Henn et al., applicants' representative also showed during the interview a sample of the claimed invention, as made in accordance with Example 6C, along with SEMs of the cross-section of the material. In looking at both the material and the SEMs, it is apparent that the flock fibers stand on end, in accordance with the claims of the present application, and provide a velvet-like flocked surface. Moreover, the wear cycles to leakage measured for this material is 4080 cycles, and it is difficult, if not impossible, to remove the flock from the substrate by scratching with a fingernail.

In view of the demonstrations made, and in view of the claimed distinguishing features of the present invention, applicants submit that Henn et al. does not anticipate the claimed invention. Accordingly, applicants request that this §102 rejection be withdrawn.

IV. Rejections under 35 U.S.C. §102/103

Claims 1-11, 13-15, 17, 18 22-26 and 49 were rejected under 35 U.S.C. §102(b) as being anticipated by, or in the alternative, under 35 U.S.C. §103(a) as obvious over U.S. Patent No. 5,026,591, issued to Henn et al. Moreover, claim 12 was rejected under 35 U.S.C. §102(b) as being anticipated by, or in the alternative, under 35 U.S.C. §103(a) as obvious over Henn et al.

For the same reasons as set forth with respect to the §102 rejection above, applicants submit that the claimed invention is neither anticipated under §102 nor obvious under §103 in view of Henn et al. Specifically, as noted above with respect to the purpose for which Henn "married" flock onto a tacky surface, there is no disclosure or suggestion in the teachings of Henn et al. that it would be possible to form a material having a flocked surface where the flock fibers stand on end and which provide the claimed abrasion resistance. As noted during the interview, the first named inventor on the Henn et al. patent would be willing to submit a declaration to this effect should such a request be made.

In view of the demonstrations and arguments made, and in view of the claimed distinguishing features of the present invention, applicants submit that Henn et al. does not anticipate or render obvious the claimed invention.

Accordingly, applicants respectfully request that this rejection be withdrawn.

V. Rejections under 35 U.S.C. §103

Claims 16 and 20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Henn et al. in view of EP 455 394 to Lumb et al. Claims 19, 21, 27, 31-40 and 50-51 were rejected under 35 U.S.C. §103(a) as being unpatentable over Henn et al. Claim 21 was rejected under 35 U.S.C. §103(a) as being unpatentable over Henn et al. and further in view of U. S. Patent 5,376,441 to Wu et al. Claims 41-43 were rejected under 35 U.S.C. §103(a) as unpatentable over Henn et al. alone or in view of Wu et al. Claim 28 was rejected under 35 U.S.C. §103(a) as unpatentable over Henn et al. alone or in view of U. S. Patent No. 4,194,041, to Gore et al. Claim 29 was rejected under 35 U.S.C. §103(a) as unpatentable over Henn et al. in view of U. S. Patent No. 4,918,981 to Gore and U. S. Patent No. 5,532,037 to Aumann. Claim 30 was rejected under 35 U.S.C. §103(a) as unpatentable over Henn et al. in view of U. S. Patent No. 5,349,705, to Ragan. Finally, claims 44-48 and 52 were rejected under 35 U.S.C. §103(a) as unpatentable over Henn et al. in view of U. S. Patent No. 5,262,234, to Minor et al. Applicants respectfully traverse each of these rejections.

Applicants refer to the discussions provided above relating to the anticipation rejections and repeat those arguments with respect to this obviousness rejection.

As a further distinction, during the interview on February 16th, the discussion centered around the differences between the Henn et al. reference and the claimed invention. One point of discussion related the amount of flock present on the surface of the substrate as a distinguishing feature. Referring to the specification of the present application at, for example, pages 1-3, applicants note that a flocked surface is referred to as having a velvet-like appearance. Moreover, it is noted that historically, flocked surfaces have been used to provide, among other things, decorative and visual appeal (e.g., a velvet-like surface), wear resistance, and the like. Thus, applicants submit that the amount of flock needed to form the claimed "flocked surface" is one which provides a velvet-like appearance, as in the attached sample of Example 6C material. This is in clear contrast to the surface of the Comparative Example 2F surface which is representative of the Henn et al. material. In addition, the claimed wear

resistance of the present invention further distinguishes applicants' flocked surface from the teachings of Henn et al.

Accordingly, applicants submit that Henn et al. neither discloses nor suggests the presently claimed invention. Moreover, with respect to each of the rejections based on combinations of other art with Henn et al., applicants submit that none of the additional cited references overcome the deficiencies of Henn et al. to render obvious the claimed invention.

VI. Conclusion

For the foregoing reasons, applicants submit that the present invention as defined by claims 1-53 is not anticipated, taught or suggested by any of the references of record. Accordingly, applicants believe that these claims are now in form for allowance. If further questions remain, applicants request that the Examiner telephone applicants' undersigned representative before issuing a further Office Action.

Respectfully submitted,

Carol A. Lewis White

Carol A. Lewis White, 33,306
W. L. Gore & Associates, Inc.
551 Paper Mill Road
P. O. Box 9206
Newark, DE 19714-9206
(302) 738-4880

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Enclosures: Sample of Comparative Example 2F and SEMs
Sample of Example 6C and SEMs